Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Chosen Sport: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Athlete:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Statistic to Study (event):\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Career Average (Probability to be used)\_\_\_\_\_\_\_\_\_

!0-Game Span --------------------------Probability of Event Happening---------------------------------

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Games | Events Wanted | Events Not Wanted | Total Events | Statistic of Event | Probability of Event Sequence |
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**Example**

Name: Mr. Hart

Chosen Sport: Basketball

Athlete: Reggie Miller

Statistic to Study (event): Free Throws

Career Average (Probability to be used): .90

!0-Game Span --------------------------Probability of Event Happening---------------------------------

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Games | Events Wanted | Events Not Wanted | Total Events | Statistic of Event | Probability of Event Sequence |
| Game 1 | 8 | 2 | 10 | 8/10 = .8 | (.9^8)\*(.1^2) |
| Game 2 | 8 | 0 | 8 | 8/8 = 1 | (.9^8) |
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Activity Directions

1. Now that you are in your group, you must each select one of the following sports, hockey, basketball, soccer, baseball or football.
2. Pick your favorite athlete in that sport (if you do not have a favorite then just pick a player) to calculate probabilities for.
3. Go to [www.espn.com](http://www.espn.com) to find the career statistics for the player you have chosen. Now you must choose a statistic that includes some wanted outcome as well as total outcomes. (i.e. for football you could do pass completion percentage, for baseball you could do batting average, for basketball you could do free throw shooting)
4. You will use the athlete’s career average as the probability of that event happening for them. Then you will need to find a ten game span and calculate the probability for your selected statistic for each game. This means if you choose baseball and you look at batting averages, find the probability your player gets 2 hits out of 4 plate attempts and so on for each game.
5. Talk with your group and discuss the relationship of statistics to probability and what you have learned about probability.
6. Now write a blog entry summarizing what you have discussed with your group and what you have discovered in your research.